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277085.71.A3/MIPC.68827

Ms. Carolyn d'Almeida
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San Francisco, CA 94105

Subject: Notification Regarding Self-implementing, Onsite Cleanup and Disposal of
Polychlorinated Biphenyl Remediation Waste at Building 688 Pits in Investigation
Area C2, Lennar Mare Island, Vallejo, California

Dear Ms. d'Almeida:

CH2M HILL prepared this letter to comply with the Consent Agreement and Final Order (CA/FO) between the United States Environmental Protection Agency (USEPA) and the United States Department of the Navy (Navy), with the City of Vallejo and Lennar Mare Island, LLC (LMI), as intervenors (USEPA et al. 2001). The CA/FO sets forth the polychlorinated biphenyl (PCB)-related requirements that must be met to satisfy the Toxic Substances Control Act (TSCA) for LMI's Eastern Early Transfer Parcel.

In accordance with the provisions of TSCA, and as stated in Title 40, Code of Federal Regulations (CFR), Part 761.61(a)(3), notification is required at least 30 days prior to the start of a cleanup action at a PCB-related site. This letter provides the required notification for cleanup at Building 688 Pits.

Background

Using visual site surveys and reviews of historical records, building closure reports, and databases of electrical equipment, the Navy identified sites where PCB-containing equipment was located, PCB spills were documented, or contamination was suspected because of building history or visible stains (Tetra Tech Environmental Management, Inc. [TtEMI] 1999). Navy personnel from Supervisor of Shipbuilding, Conversion and Repair, Portsmouth, Virginia, Environmental Detachment (SSPORTS) conducted interim PCB assessments and performed cleanup actions (e.g., washing, scabbling) in accordance with technical work documents, where necessary. Following the SSPORTS interim PCB assessments and necessary cleanup actions, TtEMI, personnel collected samples either to confirm the SSPORTS findings that no cleanup was necessary or to determine the effectiveness of the cleanup actions.

Building 688 is located in Investigation Area C2, north of Nereus (formerly 14th) Street, west of Nimitz (formerly California) Avenue and Building 680, east of Railroad Avenue, and south of Oklahoma (formerly 13th) Street and Building 686, as shown in Figure 1.

Building 688, built in 1941, historically was used as a steam test plant and is currently an active work area for Jeffco, an onsite tenant. Building 688 and the surrounding area are intended for commercial/industrial use (SWA Group 2000).

One PCB site associated with Building 688 is listed in the Consent Agreement signed April 16, 2001 by LMI, the City of Vallejo, and the State of California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (LMI et al. 2001): PCB Site Building 688 AL#01, which consists of the asphalt ground surface outside the northeast corner of Building 688. USEPA and DTSC granted no further action (NFA) determinations for this site on May 2, 2003 (USEPA 2003) and October 23, 2003 (DTSC 2003), respectively.

Two PCB sites associated with Building 688 were identified after the Consent Agreement was signed and are described below:

- PCB Site Building 688 UL#01 is the transformer pad located outside and west of Building 688. This site will be addressed in a separate pending submittal.
- PCB Site Building 688 UL#02 consists of specific building floor stains in the northern, southeastern, and central portions of the Building 688 interior. The floor stains are unrelated to the pits. CH2M HILL requested NFA from the USEPA for PCB Site Building 688 UL#02 on April 13, 2009 (CH2M HILL 2009a). An NFA determination from USEPA is pending for this site.

PCB Site Building 688 Pits was also not included in the Consent Agreement (LMI et al. 2001). Building 688 Pits consists of 10 subsurface pits located inside Building 688 that were identified during site reconnaissance activities performed in May 2008 and June 2010. Pits 3, 4, 6, 7, and 8 are approximately 1.5 feet deep; Pits 1 and 5 are approximately 7 feet deep (CH2M HILL, 2009b); and Pits 9 and 10 are between 15 and 20 feet deep. A storage tank and related piping remain inside Pit 10. All of the aforementioned pits appear to be constructed with concrete sidewalls and floors (CH2M HILL, 2010). The depth and construction of Pit 2 are not known. Each pit has a steel cover over the top of it. Pits 9 and 10 have large steel plate covers approximately 0.5-inch thick. The remaining pits are covered by interlocking cast steel plates that are fitted together. The steel covers on Pits 1, 3, 4, 5, 6, and 7 have 6-inch circular lids with a 2-inch access port in the lid. Pit 5 has access via a manway structure so that the pit can be accessed without removing the cover. Table 1 presents a summary of the pit characteristics. The as-built drawings for Building 688 from April 1941 describe the building as an electric shop, steam test plant, and subassembly facilities extension for Building 382 (Navy 1941). The drawings show a Pit "C" and Pit "E", each of which are shown as 7 feet deep. On the basis of the as-built drawing, it appears that Pits "C" and "E" are Pits 1 and 5, respectively, provided as Figures 2 and 3 with this letter. The specific purposes of the pits are not described on the as-built drawings. Other construction details are shown in Table 1.

Based on the following observations, the standing water in the pits does not appear to be related to groundwater:

- In 2008, 2009, and 2011, standing water was observed, and the depth to water was measured, in Pits 1 and 5 (because no access exists, it was not possible to determine if standing water exists in Pit 2).
- In 2010, water was observed by the Building 688 tenant at the bottom of Pit 9, which is approximately 15 to 20 feet deep (CH2M HILL 2010).
- In 2010, Pit 10 was observed to be dry (CH2M HILL 2010).
- Between November 2008 and January 2011, the depth to groundwater in monitoring well B688MW0100, which is located approximately 15 feet northeast of Building 688 (Figure 2), ranged between approximately 3.3 to 6.1 feet below ground surface (bgs).
- In March 2008, the depth to standing water in Pits 1 and 5 was measured at 5.8 and 2.5 feet bgs, respectively.
- In November 2009 the depth to standing water in Pits 1 and 5 was measured at 5.83 and 2.58 feet bgs, respectively.
- In January 2011, the depth to standing water in Pits 1 and 5 was measured at 5.8 and 2.5 feet bgs, respectively.
- Because the ground surface elevation at the well is approximately the same as the floor surface inside Building 688, the depth to water in the well was compared to the depth to water in Pits 1 and 5 (total depth of these two pits is approximately 7 feet, as discussed in Table 1).
- The measured depth to water in the pits remained relatively constant in these three measurements.
- The depth to groundwater (measured at between 3.3 and 6.1 feet bgs) is approximately 9 to 12 feet above the bottom of Pits 9 and 10 (both approximately 15 to 20 feet deep, as shown in Table 1).
- The depth to water in Pit 1 was in the range of the monitoring well water levels but remained stable at the times of the three measurements; the depth to water in Pit 5 was shallower than the shallowest measured depth in B688MW0100 and remained stable at the times of the three measurements.

The conceptual site model for the pits relative to groundwater shows that the depths to water in the pits are not related to groundwater levels. Water in the pits appears to be from the surface within Building 688. Significant quantities of groundwater are not entering the pits as evidenced by:

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- The lack of water in Pit 10, which is 15 to 20 feet deep.
- Water that is only at the bottom of Pit 9 (15 to 20 feet deep).
- Water levels in Pits 1 and 5 that were not observed to vary in the measurements taken.

In accordance with the provisions of TSCA, and as stated in 40 CFR 761.61(a)(3), notification is required at least 30 days prior to the start of a cleanup action at a PCB-related site. This letter provides the required notification for cleanup at Building 688 Pits. The cleanup will be performed in accordance with 40 CFR 761.61(a) – self-implementing, onsite cleanup, and disposal of PCB remediation waste.

The following sections provide a summary of previous sampling and cleanup actions, the location and extent of PCB contamination, and the proposed cleanup plan for Building 688 Pits.

Nature of Contamination – 40 CFR 761.61(a)(3)(i)(A)

As part of a limited investigation at Building 688 Pits performed in June and September 2008, CH2M HILL personnel collected sediment and water samples from pits and soil and groundwater samples from borings near and downgradient from the pits. A detailed description of the sampling and the results for the limited investigation were presented in the *Data Summary Report, Limited Investigation of Subsurface Pits Inside Building 688, Investigation Area C2, Lennar Mare Island, Vallejo, California* (CH2M HILL 2009b).

The following samples were collected in the 2008 investigation:

- Sediment samples were collected from the interiors of Pits 3, 4, 6, and 7 and were analyzed for PCBs, metals, and organochlorine pesticides (OCPs).
- Standing water samples were collected from Pits 1 and 5 and were analyzed for PCBs, metals, OCPs, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and polynuclear aromatic hydrocarbons.
- Soil samples were collected from four borings (two inside Building 688 and two outside Building 688 to the northeast) and were analyzed for PCBs, metals, OCPs, TPH, VOCs, and SVOCs.
- A groundwater sample was collected from one of the indoor borings and was analyzed for PCBs, metals, OCPs, TPH, VOCs, and SVOCs.
- The two borings advanced outside Building 688 were completed as groundwater monitoring wells. Three groundwater samples were then collected from each monitoring well and were analyzed for VOCs, SVOCs, and TPH.

Total PCB concentrations for the samples collected in the 2008 investigation are presented in Table 2 and Figure 2.

Total PCBs were not detected in the samples of standing water collected from Pits 1 and 5 or in the grab groundwater sample collected from soil boring B688GB0108 in Building 688 (Figure 2). Total PCBs were detected at concentrations greater than the TSCA cleanup level of 1 milligram per kilogram (mg/kg) in sediment samples collected from Pits 4 and 7, as shown in Figure 2. Total PCBs were below 1 mg/kg in the remaining sediment and soil samples (Figure 2).

Summary of Previous Sampling – 40 CFR 761.61(a)(3)(i)(B)

Table 2 summarizes the previous sampling and analysis for PCBs at Building 688 Pits. The table includes the sample numbers, matrices, dates, and total PCB concentrations (or laboratory detection levels if PCBs were not detected). Previous sampling locations for Building 688 Pits are presented in Figure 2.

Location and Extent of Contaminated Area – 40 CFR 761.61(a)(3)(i)(C)

Sample results indicate that sediment in Pits 4 and 7 at Building 688 Pits contains total PCBs at concentrations above the TSCA cleanup level of 1 mg/kg. Total PCBs were not detected at total concentrations above 1 mg/kg in soil samples collected from borings near the Building 688 Pits. In addition, total PCBs were not detected at concentrations above laboratory reporting limits in standing water samples collected from the pits nor in groundwater samples collected from the monitoring wells outside Building 688.

Cleanup Plan – 40 CFR 761.61(a)(3)(i)(D)

The proposed cleanup actions at Building 688 Pits will consist of the following activities:

- Pits will be accessed by removing the covers or using a manway or by gaining access by other means if removal of the steel plates covering the pits or associated equipment makes their removal impracticable.
- Pit interiors will be inspected following plate removal or through the circular lids to confirm that the pit bottoms are concrete.
- Sediment and standing water contained in the pits will be removed and containerized, and the interior surfaces of the pits will be power washed; removal of the sediment and water will be performed with a vacuum suction device if steel plates are not removed.
- The interior of each pit will be visually examined for presence of potential pathways (e.g., visible cracks or fissures in concrete, sumps, piping entering the pit) to underlying soil or potential infiltration of water.

After pit inspections and power washing have been completed, one composite concrete chip verification sample will be collected from each pit, in accordance with 40 CFR Part 761, Subpart O, and will be analyzed for total PCBs. If the plates are not removed, subsamples will be collected from the circular lids. The locations of the circular lids may require slight

variations in the grid spacing specified in Subpart O; however, a maximum of nine subsamples will be collected and composited into a single verification sample for analysis of PCBs. Proposed verification sample collection locations are shown in Figure 3. These locations assume that the steel plates are removed or the circular lids are similarly spaced.

If a pit is discovered to have a soil bottom, overlying sediment will be removed and a composite soil verification sample will be collected from the soil at the pit bottom, as shown in Figure 3. Concentrations of PCBs in verification samples will be compared with the TSCA cleanup goal of 1 mg/kg or site-specific risk levels for a low-occupancy site.

After soil removals or additional power washing (if necessary) and sampling have been completed, the 1.5-foot-deep pits (Pits 3, 4, 6, 7, and 8) will be backfilled with concrete. For Pits 1, 5, 9, and 10, depending on visual inspections and access, the removed steel covers will be replaced. If site conditions make replacing the plates impracticable or such that their use will be significantly compromised, LMI will be consulted for alternatives or options to replacing the plates. Pit 2 will be backfilled if it is found to be 1.5 feet deep or less. If Pit 2 is found to be more similar to the deeper pits at the site (e.g., 7 or more feet deep), then it will be treated as Pits 1, 5, 9, and 10, mentioned above.

For verification sampling locations where analytical results suggest that the TSCA cleanup goal has not been achieved for pits that are not to be backfilled with concrete, the following alternatives are proposed:

- **Alternative 1:** At pit locations where the maximum total PCB concentration is less than 10 mg/kg and the average total PCB concentration is less than 5 mg/kg in concrete, the pit will be closed in accordance with Paragraph 8(b)(2) of the CA/FO and 40 CFR 761.61(c) of TSCA. A deed restriction will be placed on the pit limiting the pit to high occupancy, industrial uses.
- **Alternative 2:** At pit locations where total PCB concentrations are less than 10 mg/kg, the pit will be capped in accordance with Paragraph 8(a)(i)(B) of the CA/FO and 40 CFR 761.71(a)(7).
- **Alternative 3:** At pit locations where total PCB concentrations are less than 25 mg/kg, the pit will be closed as a low-occupancy site in accordance with Paragraph 8(a)(ii)(B) of the CA/FO and 40 CFR 761.61(a)(4)(i), with the requirement of a deed restriction limiting the pit to low occupancy.
- **Alternative 4:** At pit locations where total PCB concentrations are greater than 25 mg/kg and less than or equal to 50 mg/kg, the pit will be closed as a low-occupancy site in accordance with Paragraph 8(a)(ii)(b) and 40 CFR 761.61(a)(4)(i). The site will be secured and marked with the M_L mark with the requirement of a deed restriction in accordance with 40 CFR 761.61(a)(8) limiting the pit to low occupancy.

- **Alternative 5:** At pit locations where total PCB concentrations are greater than 25 mg/kg and less than 100 mg/kg, the pit will be capped in accordance with Paragraph 8(a)(iii) of the CA/FO and 40 CFR 761.61(a)(4)(i), with the requirement of a deed restriction limiting the pit to low occupancy.

Cleanup actions will be performed in accordance with the *Final Polychlorinated Biphenyl Work Plan, Lennar Mare Island, Vallejo, California* (CH2M HILL 2003). Samples will be analyzed in accordance with the *Quality Assurance Project Plan, Lennar Mare Island, Vallejo, California* (CH2M HILL 2001) using USEPA Method SW8082. Health and safety will be maintained in accordance with the *Health and Safety Plan for PCB Site Sampling and Remediation* (Appendix A to the *Final Polychlorinated Biphenyl Work Plan, Lennar Mare Island, Vallejo, California* [CH2M HILL 2003]) and a site-specific health and safety plan that will be prepared prior to implementing the proposed actions. Standard operating procedures for the fieldwork and issues regarding permits, notifications, and site security, access, restoration, and demobilization were addressed in the *Final Polychlorinated Biphenyl Work Plan, Lennar Mare Island, Vallejo, California* (CH2M HILL 2003).

PCB-containing wastes generated from cleanup activities will likely be disposed offsite in a Class I landfill. However, final disposition of the waste will be determined using the results of waste characterization samples. PCB waste will be managed in accordance with CH2M HILL Health, Safety, and the Environment Standard Operating Procedure 82, which was provided in the *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003).

Polychlorinated Biphenyl Site Closure Process

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and TSCA, NFA is appropriate at a PCB-related site if no potential source and no PCB contamination are present (CH2M HILL 2003). Even if a potential source or PCB contamination is present in machinery or building materials, NFA is appropriate under CERCLA if there has been no release of PCBs to soil or groundwater, and no visible pathway exists for migration of PCBs to soil or groundwater (CH2M HILL 2003); such sites will be evaluated under TSCA for site closure in accordance with the CA/FO (USEPA et al. 2001). If there has been a known release to soil or groundwater, NFA is also appropriate if the detected total PCB concentrations in soil or groundwater do not exceed the applicable screening level, or if results of a site-specific risk evaluation demonstrate that potential risks associated with exposure to residual PCBs are within the risk-management range generally used to determine whether cleanup is necessary.

Certification – 40 CFR 761.61(a)(3)(i)(E)

Project files for Building 688 Pits are maintained in the CH2M HILL office at 155 Grand Avenue, Suite 800, in Oakland, California. Attachment 1 contains the written certification, signed by LMI (the owner of the property where the cleanup site is located) and CH2M HILL (the party conducting the cleanup), documenting that the sampling plans and

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procedures used to assess or characterize the PCB contamination at the cleanup site are on file at the above-mentioned location and available for USEPA inspection.

Conclusions

At Building 688 Pits, the maximum remaining total PCB concentration is 22 mg/kg, in the sediment sample collected from Pit 4. Concentrations of constituents in native soil and groundwater samples collected outside the pits indicate that PCBs inside the pits have not migrated to surrounding soil or groundwater.

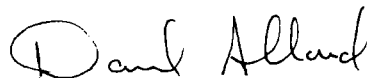
Assuming that further visual inspections confirm that the pits have concrete walls with a concrete bottom, sediment and water samples collected from the pits represent conditions in the interior of the pits and not soil and groundwater conditions outside of the pits. Because of these conditions, the concentrations of constituents detected in sediment and water samples collected from the pits are only representative of the conditions inside the pits and are not representative of the soil and groundwater outside the pits.

Therefore, in accordance with the approved *Final Polychlorinated Biphenyl Work Plan, Lennar Mare Island, Vallejo, California* (CH2M HILL 2003) and the CA/FO (USEPA et al. 2001), the proposed cleanup actions for Building 688 Pits are removing the covers or otherwise accessing the 10 subsurface pits in Building 688, removing sediment and standing water in the pits, power-washing the interior surfaces of the pits, and collecting composite concrete chip or soil verification samples from each of the pits for analysis of total PCBs. If the cleanup levels cannot be achieved at a pit location, that pit may be capped and/or may require a deed restriction in accordance with Paragraph 8 of the CA/FO and 40 CFR Part 761.61.

Please submit your approval of this notification for Building 688 Pits to Stephen Farley at the above address or via email at Stephen.Farley@CH2M.com within 30 calendar days of receiving this letter. If you have questions regarding the PCB site addressed in this letter, please contact Dave Allard at (480) 295-3913 or Stephen Farley at (707) 647-1851.

Sincerely,

CH2M HILL



David Allard, P.E.
Project Manager



Stephen M. Farley, P.G.
Senior Technical Consultant

RDD/103490009 (CAH4844.doc)
ES121410144559RDD

Enclosures: Tables 1 and 2, Figures 1 through 3, and Attachment 1

References

- California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). 2003. Letter. "Lennar Mare Island, Request for No Further Action Determinations for Polychlorinated Biphenyl (PCB) Sites – Fourteen Sites Within Investigation Area C2, Dated October 9, 2003." October 23.
- CH2M HILL. 2001. *Quality Assurance Project Plan, Lennar Mare Island, Vallejo, California*. November.
- _____. 2003. *Final Polychlorinated Biphenyl Work Plan, Lennar Mare Island, Vallejo, California*. March 7.
- _____. 2009a. Letter. "Polychlorinated Biphenyls at Building 688 UL#02 in Investigation Area C2, Where No Further Action is Required under the United States Environmental Protection Agency Consent Agreement and Final Order." April 13.
- _____. 2009b. *Data Summary Report, Limited Investigation of Subsurface Pits Inside Building 688, Investigation Area C2, Lennar Mare Island, Vallejo, California*. November 20.
- _____. 2010. Personal communication between Dave Allard of CH2M HILL and Aaron West of JeffCo. November 3.
- Lennar Mare Island, LLC (LMI), City of Vallejo, and State of California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). 2001. *Consent Agreement Between Lennar Mare Island, the City of Vallejo, and the State of California, California Environmental Protection Agency, Department of Toxic Substances Control*. April 16.
- Navy Department, Bureau of Yards and Docks. 1941. As-built drawings titled "Navy Yard, Mare Island, Calif. Electric Shop, Steam Test Plant and Subassembly Facilities Extension to Bldg. 382". April 17.
- SWA Group. 2000. *Preliminary Land Use Plan*. May 23.
- Tetra Tech Environmental Management, Inc. 1999. *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Summary Report*. Revised. January.
- United States Environmental Protection Agency (USEPA). 2003. Letter. "May 2, 2003 request for EPA Determination that 272 Sites in the Eastern Early Transfer Parcel of Mare Island Require No Further Action." May 28.
- United States Environmental Protection Agency (USEPA), United States Department of the Navy (Navy), City of Vallejo, and Lennar Mare Island, LLC (LMI). 2001. *Complaint/Consent Agreement and Final Order Between Lennar Mare Island, the City of*

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*Vallejo, the U.S. Department of the Navy, and the U.S. Environmental Protection Agency
Region IX. EPA Docket No. TSCA-9-2002-0002. December 20.*

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TABLE 1
Building 688 Pits Characteristics
PCB Sites, Lennar Mare Island, Vallejo, California

Pit Number	Length (feet)	Width (feet)	Depth (feet)	Cover	Comments	Previously Sampled? (Medium)
1	7	10	7	Interlocking Steel Plates	Sampled through 2-inch-diameter access port. Water is 1.5 feet deep. May have manway for access without removing cover	Yes (water)
2	10	10	unknown	Interlocking Steel Plates	No access ports. Not sampled or inspected. May have manway for access without removing cover	No
3	10	15	1.5	Interlocking Steel Plates	Sampled through 2-inch-diameter access port. Thin layer of sediment present on bottom of pit.	Yes (sediment)
4	10	20	1.5	Interlocking Steel Plates	Sampled through 2-inch-diameter access port.	Yes (sediment)
5	10	10	7	Interlocking Steel Plates	Sampled through 2-inch-diameter access port. Water is 4.5 feet deep. Manway for access without removing cover	Yes (water)
6	10	20	1.5	Interlocking Steel Plates	Sampled through 2-inch-diameter access port.	Yes (sediment)
7	10	20	1.5	Interlocking Steel Plates	Sampled through 2-inch-diameter access port.	Yes (sediment)
8	10	20	1.5	Interlocking Steel Plates	Pit covered with equipment. Not sampled or inspected.	No
9	10	11	15 to 20	Steel plate	Not sampled. Depth visually estimated.	No
10	10	15	15 to 20	Steel plate	Not sampled. Depth visually estimated. Tank and piping in pit.	No

TABLE 2

Polychlorinated Biphenyl Sample Results for Building 688 Pits

PCB Sites, Lennar Mare Island, Vallejo, California

Sample Number	Sample Matrix	Sample Date	Total PCB Concentration ^a	Comments
B688GB0101-W	Pit Water	09/30/2008	<0.24 µg/L	Proxy values: Aroclor-1254: 0.065 mg/kg Aroclor-1260: 0.049 mg/kg Aroclor-1262: 0.125 mg/kg
B688GB0103-SD	Pit Sediment	09/19/2008	<0.075 mg/kg	Proxy values: Aroclor-1254: 0.02 mg/kg Aroclor-1260: 0.02 mg/kg Aroclor-1262: 0.035 mg/kg
B688GB0104-SD	Pit Sediment	09/19/2008	22mg/kg	Aroclor-1254 = 11 mg/kg Aroclor-1262 = 11 mg/kg Proxy value for Aroclor-1260: 0.041 mg/kg
B688GB0105-W	Pit Water	09/19/2008	<0.23 µg/L	Proxy values: Aroclor-1254: 0.034 mg/kg Aroclor-1260: 0.075 mg/kg Aroclor-1262: 0.125 mg/kg
B688GB0106-SD	Pit Sediment	09/19/2008	0.27mg/kg	Aroclor-1254 = 0.18 mg/kg Aroclor-1260 = 0.085 mg/kg Proxy value for Aroclor-1262: 0.003 mg/kg
B688GB0107-SD	Pit Sediment	09/19/2008	17 mg/kg	Aroclor-1254 = 3.4 mg/kg; Aroclor-1260 = 14 mg/kg Proxy Value for Aroclor-1262: 0.07 mg/kg
B688GB0108-S3	Soil	09/19/2008	<0.0094 mg/kg	Proxy values: Aroclor-1254: 0.0036 mg/kg Aroclor-1260: 0.0018 mg/kg Aroclor-1262: 0.0058 mg/kg
B688GB0108-S7	Soil	09/19/2008	<0.0065 mg/kg	Proxy values: Aroclor-1254: 0.0013 mg/kg Aroclor-1260: 0.0013 mg/kg Aroclor-1262: 0.004 mg/kg
B688GB0108-S10	Soil	09/19/2008	<0.0074 mg/kg	Proxy values: Aroclor-1254: 0.0015 mg/kg Aroclor-1260: 0.0015 mg/kg Aroclor-1262: 0.0045 mg/kg

TABLE 2

Polychlorinated Biphenyl Sample Results for Building 688 Pits
 PCB Sites, Lennar Mare Island, Vallejo, California

Sample Number	Sample Matrix	Sample Date	Total PCB Concentration ^a	Comments
B688GB0108-GW	Groundwater	09/19/2008	<0.23 µg/L	Proxy values: Aroclor-1254: 0.0335 mg/kg Aroclor-1260: 0.075 mg/kg Aroclor-1262: 0.125 mg/kg
B688GB0109-S3	Soil	09/19/2008	0.019 mg/kg	Aroclor-1262 = 0.017 mg/kg Proxy values: Aroclor-1254: 0.001 mg/kg Aroclor-1260: 0.001 mg/kg
B688GB0109-S5	Soil	09/19/2008	0.025 mg/kg	Aroclor-1262 = 0.023 mg/kg Proxy values: Aroclor-1254: 0.0012 mg/kg Aroclor-1260: 0.0012 mg/kg
B688MW0100-S3	Soil	07/10/2008	<0.028 mg/kg	Proxy values: Aroclor-1254: 0.0085 mg/kg Aroclor-1260: 0.0085 mg/kg Aroclor-1262: 0.0085 mg/kg
B688MW0100-S10	Soil	07/10/2008	<0.028 mg/kg	Proxy values: Aroclor-1254: 0.011 mg/kg Aroclor-1260: 0.011 mg/kg Aroclor-1262: 0.011 mg/kg
UST686MW0103X-S4	Soil	07/10/2008	<0.017 mg/kg	Proxy values: Aroclor-1254: 0.0085 mg/kg Aroclor-1260: 0.0085 mg/kg Aroclor-1262: 0.0085 mg/kg
UST686MW0103X-S7	Soil	07/10/2008	<0.02 mg/kg	Proxy values: Aroclor-1254: 0.01 mg/kg Aroclor-1260: 0.01 mg/kg Aroclor-1262: 0.01 mg/kg
UST686MW0103X-S9.5	Soil	07/10/2008	0.032 mg/kg	Proxy values: Aroclor-1254: 0.0095 mg/kg Aroclor-1260: 0.011 mg/kg Aroclor-1262: 0.0095 mg/kg

^aTotal PCBs were calculated by summing all of the detected Aroclors and, for nondetects, by using proxy value of one-half the laboratory detection level for historically detected Aroclors and adding this to detected Aroclors.

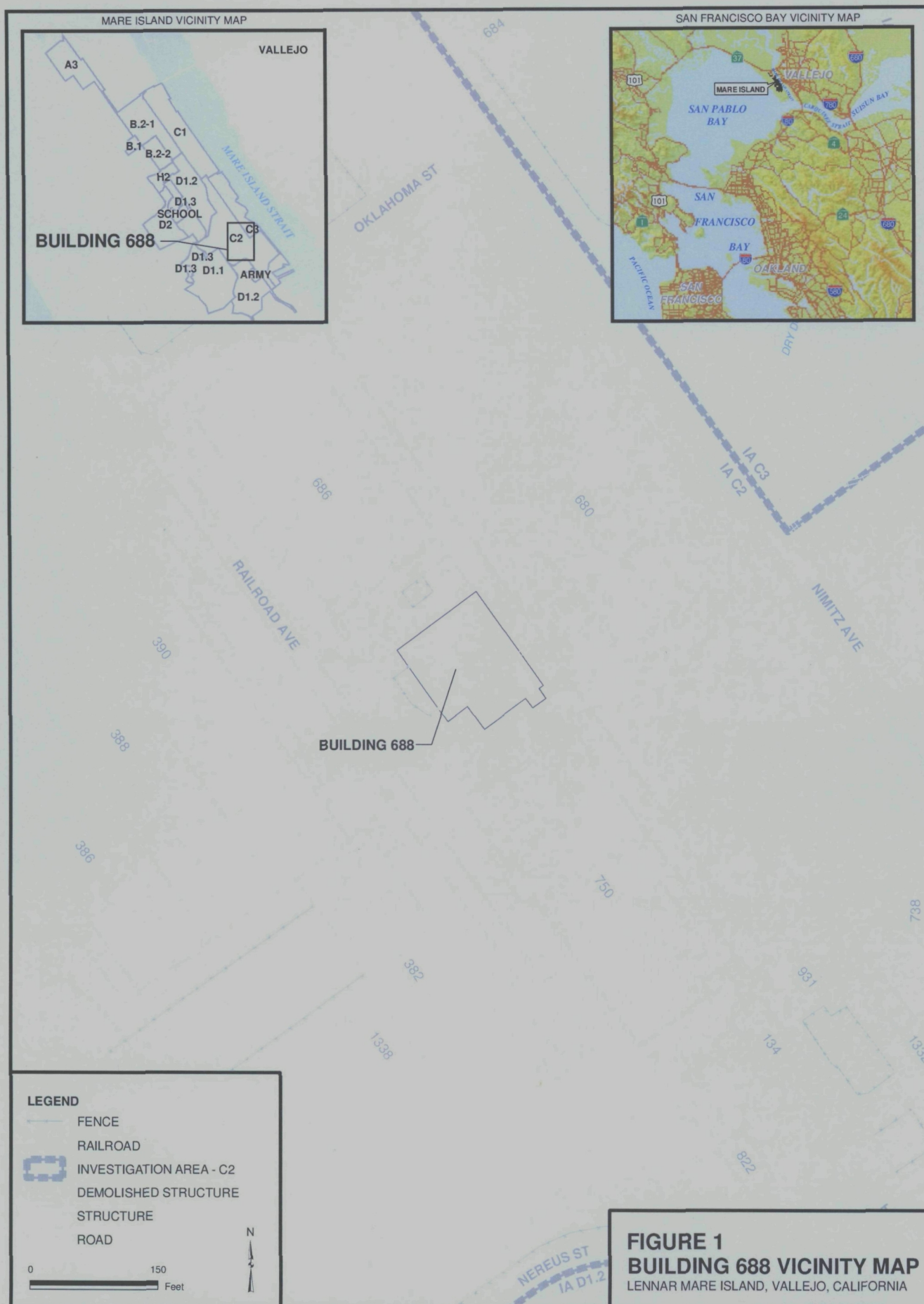
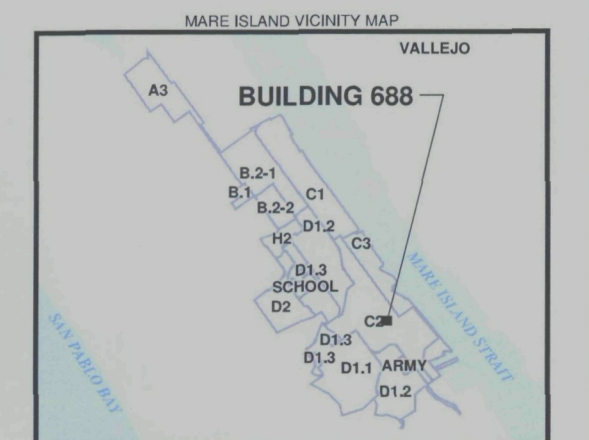


FIGURE 1
BUILDING 688 VICINITY MAP
 LENNAR MARE ISLAND, VALLEJO, CALIFORNIA



- LEGEND**
- HAND-AUGERED BORING SAMPLE
 - MONITORING WELL
 - SEDIMENT SAMPLE
 - WATER GRAB SAMPLE
 - UNDERGROUND ELECTRICAL UTILITY
 - SEWER SERVICE LINE
 - AIR PIPELINE
 - COMPRESSED AIR PIPELINE
 - STORMWATER BACKBONE
 - STORMWATER SERVICE LINE
 - FENCE
 - RAILROAD
 - SUBSURFACE PIT
 - SUBSURFACE PIT (NOT PREVIOUSLY CHARACTERIZED)
 - STRUCTURE

SAMPLE LOCATION ID: IR14VB219
SEDIMENT CONCENTRATION (mg/kg): 86FJ (2.8)
WATER CONCENTRATION (µg/L): <4.8 (6/99)
SAMPLE COLLECTION (MONTH/YEAR):
SAMPLE BEGINNING DEPTH (FEET BGS):

- NOTES:**
- "<" = NOT DETECTED AT OR ABOVE THE INDICATED CONCENTRATION
 - "=" = ANALYTE WAS DETECTED
 - "J" = ESTIMATED DETECTED RESULT
 - ANALYTE = TOTAL PCBs
 - FOR SAMPLES COLLECTED BY CH2M HILL, TOTAL PCBs ARE CALCULATED BY SUMMING ALL OF THE DETECTED AROCLORS AND, FOR NON-DETECTS, BY USING A PROXY VALUE OF ONE-HALF THE DETECTION LEVEL FOR HISTORICALLY DETECTED AROCLORS AND ADDING THIS TO DETECTED AROCLORS

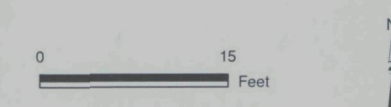
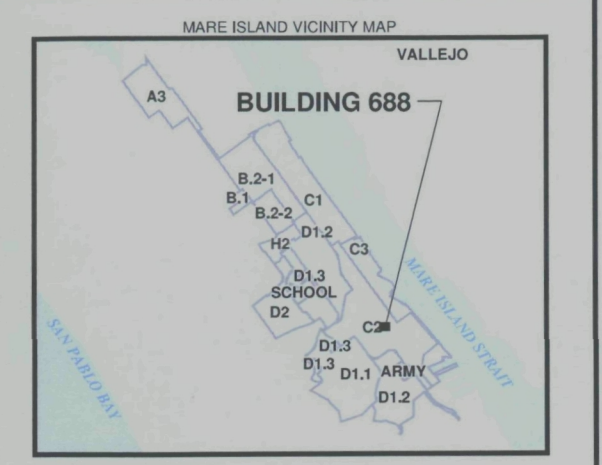


FIGURE 2
BUILDING 688 PITS PREVIOUS
SAMPLE LOCATIONS AND
PCB CONCENTRATIONS
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA



- LEGEND**
- △ HAND-AUGERED BORING SAMPLE
 - ⊕ MONITORING WELL
 - × SEDIMENT SAMPLE
 - ⊗ WATER GRAB SAMPLE
 - PROPOSED VERIFICATION SUBSAMPLE LOCATION
 - Ⓢ STORM SEWER CATCHBASIN
 - Ⓜ STORM SEWER MANHOLE
 - ⊙ SEWER MANHOLE
 - UNDERGROUND ELECTRICAL UTILITY
 - SEWER SERVICE LINE
 - AIR PIPELINE
 - COMPRESSED AIR PIPELINE
 - STORMWATER BACKBONE
 - STORMWATER SERVICE LINE
 - FENCE
 - RAILROAD
 - SUBSURFACE PIT
 - SUBSURFACE PIT (NOT PREVIOUSLY CHARACTERIZED)
 - STRUCTURE

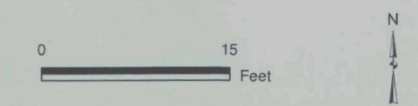


FIGURE 3
BUILDING 688 PITS PROPOSED
VERIFICATION SAMPLING
LOCATIONS
 LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

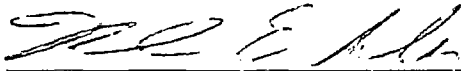
Attachment 1
Certification

ATTACHMENT 1

Certification

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the polychlorinated biphenyl (PCB) contamination at Building 688 Pits are on file at the CH2M HILL office at 155 Grand Avenue, Suite 800, Oakland, California. These files are available for USEPA inspection.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.



Neal Siler/Lennar Mare Island, LLC (owner of the property where the cleanup site is located)



Stephen M. Farley, P.G./CH2M HILL (party conducting the cleanup)